



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/522,601

01/26/2005

Akira Imai

4034-64

3444

23117

7590

06/29/2007

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

CHUNG, DAVID Y

ART UNIT

PAPER NUMBER

2871

MAIL DATE

DELIVERY MODE

06/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,601	IMAI ET AL.	
	Examiner	Art Unit	
	David Y. Chung	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-12 and 16-30 is/are pending in the application.
- 4a) Of the above claim(s) 16-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 2-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Hamagishi et al. (JP 09-050019) in view of Sobue et al (U.S. 6,143,450).

As to claims 2 and 8, Hamagishi discloses a stereoscopic display having a parallax barrier as shown in figure 2. In figure 2, substrate 1 comprises a parallax barrier 6 on one surface and a black matrix 4 having pixel openings 3 formed on the opposing surface. Hamagishi discloses that the openings 6a formed in the parallax barrier correspond to the pixel openings formed in the black matrix. See paragraph 0047.

Hamagishi does not disclose forming an alignment mark. Sobue discloses forming an alignment mark of the same material as the black matrix as shown in figures 1A and 1B. Note the alignment mark 3 and black matrix 2. Sobue discloses forming the alignment mark and black matrix of a metal film such as a chromium film (column 4, lines 1-14), or a black pigment containing resin (column 6, lines 43-51). Sobue

Art Unit: 2871

discloses that drawing alignment is performed using the alignment mark in forming the color filter. See column 2, lines 39-45. Sobue teaches that the disclosed alignment mark allows drawing alignment to be performed with high precision in manufacturing the color filter substrate, resulting in high-reliability. See column 10, lines 22-32. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form an alignment mark as disclosed by Sobue because of the resulting high-reliability.

As to claim 3, Sobue discloses that forming the color filter involves locating the alignment mark and aligning the ink jet head 23 with the substrate according to the alignment mark.

As to claim 4, Hamagishi discloses forming the parallax barrier 6 with a black resist or a chromic oxide. See paragraph 0046. Sobue discloses forming the alignment mark of a black resin. See column 6, lines 43-51.

As to claim 5, Hamagishi discloses forming the parallax barrier 6 with a chromic oxide or black resist. However, for the purpose of forming a parallax barrier, it was well known that using a low reflective metal such as chromium was an art recognized equivalent. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form the parallax barrier with a low reflective metal such as chromium because it was a well known art recognized equivalent.

As to claim 6, Hamagishi does not disclose a color filter in the pixel openings of the black matrix layer 4. However, it was well known and obvious to form a color filter layer in order to create a full color display. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form a color filter layer in the pixel openings of the black matrix layer in order to create a full color display.

As to claim 7, Hamagishi discloses a black matrix 4 formed on the surface of the substrate opposite the parallax barrier 6. The black matrix 4 can be considered the first layer.

As to claims 9 and 11, figure 2 of Hamagishi shows a second substrate 2 secured to the first substrate 1. Hamagishi discloses that the device is a liquid crystal panel. Therefore, a liquid crystal material is disposed between the first and second substrates.

As to claim 10, Hamagishi does not disclose dividing the panel into a plurality of smaller panels. However, this was a common and conventional practice since forming multiple panels at once was much more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form multiple panels because of the increase in efficiency.

Art Unit: 2871

As to claim 12, figure 2 of Hamagishi shows a polarizing plate 10 disposed on the viewer-side surface of the parallax barrier 6.

Response to Arguments

Applicant's arguments with respect to claims 2-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Y. Chung whose telephone number is (571) 272-2288. The examiner can normally be reached Monday thru Friday from 9:30 am to 6:00 pm. If successive attempts to contact the examiner are unsuccessful, the examiner's supervisor David C. Nelms can be reached at (571) 272-1787.

David Y. Chung
GAU 2871
06/24/07

Mike Qi
6/25/07